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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,339	08/30/1999	Tadashi Aiura	AK-284XX	5010
207	7590	05/12/2005	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP			SHAKERI, HADI	
TEN POST OFFICE SQUARE			ART UNIT	
BOSTON, MA 02109			PAPER NUMBER	

3723

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/341,339

Applicant(s)

AIURA ET AL.

Examiner

Hadi Shakeri

Art Unit

3723

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,8,11-14 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,9,10 and 17 is/are rejected.
- 7) ☒ Claim(s) 7 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims 5, 6, 8, 11-14 and 16 drawn to an invention nonelected with traverse in Paper No. 052604. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Specification***

2. The amendment filed February 17, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: limiting the disclosure to a polishing method and apparatus for mirror finishing of the internal surface of an aluminum extrusion hollow shape, one particular embodiment of the invention as originally filed is objected to. Specification as originally filed, on page 5, last paragraph, discloses, "It is an object of the present invention, ...method and apparatus which enables high precision polishing of the internal surfaces of the cylindrical portions of metallic shapes having a variety of external shapes such as aluminum extrusion hollow shapes or the like...", and further under the "Disclosure of the Invention", e.g., page 7, second paragraph discloses, "In the present method and apparatus...can be similarly applied to a variety of metallic shapes such as aluminum extrusion hollow shapes or the like...". The amendment introduces new matter by narrowing the disclosure as originally filled to a particular embodiment. It is also noted that the specification as originally filed does provide sufficient support for the amended claims as now recited.

Applicant is required to cancel the new matter in the reply to this Office Action.

Art Unit: 3723

3. The application includes terminology which is different from that which is generally accepted in the art to which this invention pertains causing undue ambiguities. For example: rotating axis **4** (rotating shaft?); restricting sleeve **17** (guide sleeve?); free ring mechanism **16**, **19** (work support?)...

Applicant is required to provide a clarification for these terms. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claim 17 recites a workpiece obtained by the polishing method of claim 4, wherein claim 4 recites a polishing apparatus, rendering the claim indefinite. further it is noted, the language as written renders the claim objectionable, because of improper dependency, since it is unclear whether the claim is dependent or independent.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3723

7. Claims 1, 4, 10 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicant's Admitted Prior Art (AAPA).

As admitted by the Applicant, e.g., page 4, lines 12-24, electrolytic integrated polishing is used to finish long sized pipes including aluminum extrusion hollow shapes, however, without a high precision. It is also admitted that the conventional apparatuses, i.e., axial direction horizontally oriented, in which the tool electrode and the work are rotated and relatively moved are utilized to polish the external surface of a tube, which is considered meeting the limitations as recited, however, in the alternative it would have been obvious to modify the apparatus of AAPA to set up vertically, for a smaller footprint in order to save space, a modification well within the knowledge of one of ordinary skill in the art, to polish the internal surface of a cylindrical portion of a long size cylindrical workpiece (a relative term).

Regarding claim 4, inserting the tool inside the cylindrical portion, tool electrode being attached to a tip of the rotating shaft (the tip not being limited or defined, e.g., the trailing end) are considered inherent for apparatus of prior art, however, it is noted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the electrode to a tip (as evident by cited reference Indge), since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikes*, 86 USPQ 70.

Further regarding the product by process, i.e., claims 10 and 17(as best understood), AAPA meets all the limitations, except for disclosing the desired finish, however, aluminum extrusion hollow shapes having the recited finish obtained by any other methods, including AAPA augmented to further processes, meets the claim, since product-by-process claims are not limited to the manipulations of the process steps, only the structure implied by the steps, thus a device produced by the method of prior art, would meet all the structural limitations, i.e., desired finish. (See MPEP 2113 [R-1])

Art Unit: 3723

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA as applied to claims 1 and 4 above, and further in view of Hyatt (5).

AAPA as noted above meets all of the limitations of claim 9, except for disclosing a pressure tube disposed within a hollow portion of the tool. Adjusting pressing force of a grinding tool by fluid activated via a supply tube (42). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of AAPA with supply tube as taught by Hyatt to adjust the pressing force.

#### ***Allowable Subject Matter***

9. Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: a free ring mechanism having a sleeve and a free ring rotatably supported within the sleeve and having approximately the same length as the grindstone, places the above claims in condition for allowance.

#### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 3723

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Response to Arguments***

12. Applicant's arguments with respect to claims 1, 4, 7, 9, 10 and 15 have been considered but are moot in view of the new ground(s) of rejection.

In regards to claims 1 and 4, the argument that the tool electrode is attached to a tip is not persuasive, as noted above, and the argument regarding product-by-process is not persuasive since as indicated in MPEP 2113 [R-1], product-by-process claims are not limited to the manipulations of the process steps, only the structure implied by the steps, thus an aluminum extrusion hollow shape produced by the method of prior art, including/excluding AAPA, having a roundness equal or less than 10 micron and roughness equal or less than 1 micron, would meet all the structural limitations, i.e., desired finish.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hadi Shakeri  
Primary Examiner  
Art Unit 3723  
May 9, 2005